## This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

## BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

□ BLACK BORDERS
□ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
□ FADED TEXT OR DRAWING
□ BLURRED OR ILLEGIBLE TEXT OR DRAWING
□ SKEWED/SLANTED IMAGES
□ COLOR OR BLACK AND WHITE PHOTOGRAPHS
□ GRAY SCALE DOCUMENTS
□ LINES OR MARKS ON ORIGINAL BOCUMENT
□ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

## IMAGES ARE BEST AVAILABLE COPY.

OTHER:

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

	Hits	Search Text	DBs
20	7	(senso\$4 with (amplifie\$4 elemen\$2)) and (active adj2 matrix adj2 device) and (DAC D/A (digital adj5 analog adj2 convert\$5))	USPAT; US-PGPUB
21	10062	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5) same substrat\$2)	USPAT; US-PGPUB
22	0	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5) same substrat\$2)) and (group near5 adrress near5 first near5 last)	USPAT; US-PGPUB
23	0	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5) same substrat\$2)) and (group with (adrress near5 first near5 last))	USPAT; US-PGPUB
24	0	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5) same substrat\$2)) and (group with (adrress with (first and last)))	USPAT; US-PGPUB
25	503	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) and ((bus adj line) with (signal adj line))	USPAT; US-PGPUB
26	18	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) and (((first last) near10 bus adj line) with ((first last) near10 signal adj line))	USPAT; US-PGPUB
27	5	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5))) and (((first last) near10 bus adj line) with ((first last) near10 signal adj line))	USPAT
28	15	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch)) and (((first last) near10 bus adj line) with ((first last) near10 signal adj line))	USPAT
29	4	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch)) and (((first last) near4 bus adj line) with ((first last) near4 signal adj line))	USPAT
30	22	((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) and (((first last) near10 bus adj line) with (signal adj line))	USPAT; US-PGPUB
31	11	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) with substrate) and ((bus adj line) with (signal adj line))	USPAT; US-PGPUB
32	0	6507332.URPN.	USPAT

	Hits	Search Text	DBs
33	11	("4716403"   "4779086"   "4870399"   "4890101"   "5192945"   "5376944"   "5610414"   "5654735"   "5889504"   "5973661"   "6025835").PN.	USPAT
34	1	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) with substrate) and ((bus adj line) with ((first last) near10 signal adj line))	USPAT; US-PGPUB
35	0	(((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) same substrate) and ((bus adj line) with ((first last) near4 signal adj line))	USPAT; US-PGPUB
36	0	(LCD same substrat\$2) and (group with (adrress near5 first near5 last))	USPAT; US-PGPUB
37	0	(LCD and substrat\$2) and (group with (adrress near5 first near5 last))	USPAT
38	1	((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5))) and (((first last) near10 bus adj line) with ((first last) near10 signal adj line))	USPAT
39	6591	(DAC D/A) and ((set group) near5 (signal column)) and multiplex\$4	USPAT
40	1	LCD and (DAC D/A) and ((set group) near5 (signal column)) and (multiplex\$4 near7 substrate)	USPAT
41	1	LCD and (DAC D/A) and ((set group) with (signal column address)) and (multiplex\$4 near7 substrate)	USPAT
42	6	LCD and (DAC D/A) and ((set group) with (signal column address)) and (multiplex\$4 with substrate)	USPAT
43	56	LCD and ((set group) with (signal column address)) and (multiplex\$4 with substrate)	USPAT
44	0	6452580.URPN.	USPAT
45	6	("4714921"   "4890101"   "5021774"   "5130829"   "5598177"   "5641974").PN.	USPAT
46	1	6281891.URPN.	USPAT
47	14	("4766426"   "4859998"   "4922240"   "5162786"   "5170158"   "5305130"   "5341233"   "5402149"   "5402255"   "5491347"   "5510807"   "5517208"   "5532718"   "5557534").PN.	USPAT
48	63	LCD and ((set group) with (data signal column address)) and (multiplex\$4 with substrate)	USPAT

	Hits	Search Text	DBs
49	7	(LCD and ((set group) with (data signal column address)) and (multiplex\$4 with substrate) ) not (LCD and ((set group) with (signal column address)) and (multiplex\$4 with substrate) )	USPAT
50	63	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate)	USPAT
51	6	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first last) near4 signal adj line)	USPAT
52	18	5510807.URPN.	USPAT
53	28	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first last) near6 line)	USPAT
54	22	(LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first last) near6 line)) not (LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first last) near4 signal adj line))	USPAT
55	0	6452580.URPN.	USPAT
56	1	6281891.URPN.	USPAT
57	14	("4766426"   "4859998"   "4922240"   "5162786"   "5170158"   "5305130"   "5341233"   "5402149"   "5402255"   "5491347"   "5510807"   "5517208"   "5532718"   "5557534").PN.	USPAT
58	29	5426447.URPN.	USPAT
59	7	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first and last) near6 line)	
60	194	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 ) and ((first and last) near6 line)	USPAT
61	1	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 near5 substrate) and ((first and last) near6 line)	USPAT
62	10	LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 same substrate) and ((first and last) near6 line)	USPAT

	Hits	Search Text	DBs
63	3	(LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 same substrate) and ((first and last) near6 line)) not (LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 with substrate) and ((first and last) near6 line))	USPAT
64	0	24890101.pn.	USPAT
65	1	4890101.pn.	USPAT
66	1	5641974.pn.	USPAT
67	11	LCD and ((set group) same (data signal column address drain)) and (multiplex\$4 same substrate) and ((first and last) near6 line)	USPAT
68	1	(LCD and ((set group) same (data signal column address drain)) and (multiplex\$4 same substrate) and ((first and last) near6 line)) not (LCD and ((set group) with (data signal column address drain)) and (multiplex\$4 same substrate) and ((first and last) near6 line))	USPAT
69	0	((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) with ((brick adj3 fashion))	USPAT; US-PGPUB
70	5	((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) adj2 (two adj row\$2)	USPAT; US-PGPUB
71	0	LCD and ((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) adj4 (two adj2 row\$2)	USPAT
72	6	LCD and ((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) with (two adj2 row\$2)	USPAT
73	18	LCD and ((DAC D/A (digital adj5 analog adj2 convert\$5) ((first last) near10 signal adj process\$5) latch\$5)) same (two adj2 row\$2)	USPAT
74	7	LCD and ((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) near7 (two adj2 row\$2)	USPAT
75	59	LCD and ((DAC D/A (digital adj5 analog adj2 convert\$5) (signal adj process\$5) latch\$5)) and brick	USPAT
76	10	((data drain signal) adj3 line adj2 group) same ((data drain signal) adj3 process\$4 adj2 (block circuit))	USPAT

	Hits	Search Text	DBs
77	24	((data drain signal) adj3 line adj2 group) same ((data drain signal) adj3 process\$4 adj2 (block circuit))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
78	5	((data drain signal) adj3 line adj2 group) and ((data drain signal) adj3 process\$4 adj2 (block circuit)) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
79	248	((data drain signal) adj3 group) and ((data drain signal) adj3 process\$4 adj2 (block circuit)) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
80	11	((data drain signal) adj3 line adj3 group) and ((data drain signal) adj3 process\$4 adj2 (block circuit)) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
81	1	((data drain signal) adj3 line adj3 group) same ((data drain signal) adj3 process\$4 adj2 (block circuit)) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
82	11	((data drain signal) adj3 line adj3 group) and ((data drain signal) adj3 process\$4 adj2 (block circuit)) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
83	144	((data drain signal) adj3 line adj2 group) and ((data drain signal) adj3 process\$4 adj2 (block circuit))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
84	12	((data drain signal) near3 (line adj2 group)) and ((data drain signal) near3 (process\$4 adj2 (block circuit))) and LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
85	499	((data drain signal) adj3 process\$4 adj2 (block circuit)) with LCD	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
86	1545	((data drain signal) adj3 process\$4 adj2 (block circuit)) with substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
87	2016	((data drain signal) adj3 process\$4 adj2 (block circuit)) with (substrate LCD)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
88	28	((data drain signal) adj3 process\$4 adj2 (block circuit)) with (substrate and LCD)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
89	1	6384806.pn. and substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
90_	105	(345/31).CCLS.	USPAT
91	164	(345/33).CCLS.	USPAT
92	63	(345/42).CCLS.	USPAT.
93_	59	(345/51).CCLS.	USPAT
94	55	(345/59).CCLS.	USPAT
95	193	(345/67).CCLS.	USPAT

	Hits	Search Text	DBs
96	23	LCD same (((set group) adj2 (data signal column address))) with (multiplex\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
97	3	LCD with (multiplex\$4 adj3 (set group)) near5 (data signal column address)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
98	462	LCD and (((set group) near3 (data signal column address)) with (multiplex\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
99	278	LCD and (((set group) adj3 (data signal column address)) with (multiplex\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
100	295	LCD and (((set group) near3 (data signal column address)) near5 (multiplex\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
101	144	LCD and (((multiplex\$4) adj3 (set group)) near3 (data signal column address))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
102	1	LCD and (((multiplex\$4) adj (set group)) adj (data signal column address))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
103	17	LCD and (((multiplex\$4) adj3 (set group)) near3 (data signal column address)) and substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
104	8 -	LCD same (((multiplex\$4) adj3 (set group)) near3 (data signal column address))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
105	131	LCD and ((( group) near3 (data signal column address)) with (multiplex\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
106	67	LCD and ((( group) adj3 (data signal column address)) with (multiplex\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
107	39	LCD and (((multiplex\$4) adj3 (group)) near3 (data signal column address))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
108	12	LCD and (((set group) near3 (data signal column address)) with (multiplex\$4)) and ((odd even) adj4 driv\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
109	23	LCD and (((multiplex\$4) adj3 (set group)) near3 (data signal column address)) and ((odd even) near5 driv\$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
110	3	LCD and (((multiplex\$4) adj3 (set group)) and ((data signal column address)) with ((odd even) near5 driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

	Hits	Search Text	DBs
111	7	LCD and (((multiplex\$4) with (group)) and ((data signal column address)) with ((odd even) near5 driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
112	6	LCD with (column adj4 ((odd even) near5 driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
113	0	LCD same (column adj ((odd even) near driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
114	5	LCD and (column adj ((odd even) near driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
115	8	LCD same (column near2 ((odd even) near2 driv\$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
116	0	6166715.pn and substrate	USPAT
117	0	6166715.pn and layout	USPAT
118	0	6166715.pn. and substrate	USPAT
119	1	6166715.pn. and layout	USPAT
120	838	(345/98).CCLS.	USPAT
121	365	(345/99).CCLS.	USPAT
122	793	(345/100).CCLS.	USPAT
123	471	(345/92).CCLS.	USPAT
124	210	(345/103).CCLS.	USPAT
125	824	(345/204).CCLS.	USPAT
126	245	(345/205).CCLS.	USPAT
127	188	(345/206).CCLS.	USPAT